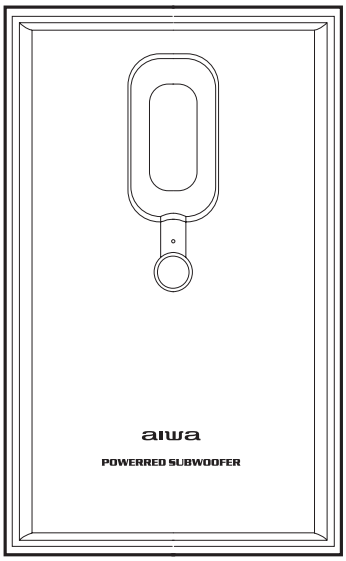
aiwa SERVICE

# TS-WM6 U
# TS-WM7 U




# SERVICE MANUAL

ACTIVE SPEAKER SYSTEM

aiwa

S/M Code No. 09-017-445-6N1

DATA

# SPECIFICATIONS

| | |
|---|---|
| **Input terminal** | INPUT jack |
| **Input sensitivity/impedance** | 450 mV/47 kilo ohms (at 60 Hz) |
| **Power output** | 50 W (8 ohms, T.H.D. 1 %) |
| **Frepuency response** | 40 Hz – 200 Hz |
| **Speaker type** | Bass reflex type |
| **Speaker unit** | 20 cm (8 in.) |
| **Power requirement** | AC 120 V, 60 Hz |
| **Power consumption** | 40 W |
| **Dimensions (w/h/d)** | 235 x 410 x 257 mm ($9^3/_8$ x $16^1/_4$ x $10^1/_8$ in.) |
| **Weight** | 5.4 kg (11 lbs 14 oz.) |

• Design and specifications are subject to change without notice.

# ACCESSORIES / PACKAGE LIST

| REF. NO. | PART NO. | KANRI NO. | DESCRIPTION |
|---|---|---|---|
| 1 | 8B-YP6-903-010 | | IB,U(ESF)D WM7<TS-WM7> |
| 1 | 8B-YP6-913-010 | | IB,U(ESF)D WM6<TS-WM6> |
| 2 | 87-YP3-632-010 | | CORD ASSY,PIN P-C285V-30 |

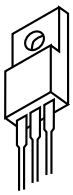
# ELECTRICAL MAIN PARTS LIST

| REF. NO. | PART NO. | KANRI NO. | DESCRIPTION |
|---|---|---|---|
| TRANSISTOR | | | |
| | 87-026-610-080 | | TR,KTC3198GR |
| | 87-026-609-080 | | TR,KTA1266GR |
| | 87-A30-306-010 | | TR,2SB1677 |
| | 87-A30-307-010 | | TR,2SD2619 |
| DIODE | | | |
| | 87-020-465-080 | | DIODE,1SS133 |
| | 87-A40-349-080 | | ZENER,MTZJ7.5C |
| | 8Z-YP2-618-010 | | DIODE,1N5402 LT |
| MAIN C.B | | | |
| C101 | 87-010-405-080 | | CAP,ELECT 10-50V |
| C102 | 87-010-405-080 | | CAP,ELECT 10-50V |
| C105 | 87-010-401-080 | | CAP,ELECT 1-50V |
| C106 | 87-010-405-080 | | CAP,ELECT 10-50V |
| C107 | 87-010-405-080 | | CAP,ELECT 10-50V |
| C108 | 87-010-404-080 | | CAP,ELECT 4.7-50V |
| C109 | 87-010-112-080 | | CAP,E 100-16 M 11L SME |
| C200 | 87-018-209-080 | | CAP,TC U 0.1-50 Z F UP050 |
| C201 | 87-010-401-080 | | CAP,ELECT 1-50V |
| C202 | 87-010-401-080 | | CAP,ELECT 1-50V |
| C203 | 87-010-405-080 | | CAP,ELECT 10-50V |
| C204 | 87-010-405-080 | | CAP,ELECT 10-50V |
| C205 | 87-010-405-080 | | CAP,ELECT 10-50V |
| C206 | 87-010-405-080 | | CAP,ELECT 10-50V |
| C207 | 87-010-404-080 | | CAP,ELECT 4.7-50V |
| C208 | 87-018-131-080 | | CAP,TC U 1000P-50 K B UP050 |
| C211 | 87-018-209-080 | | CAP,TC U 0.1-50 Z F UP050 |
| C401 | 87-010-246-080 | | CAP,ELECT 47-35V |
| C402 | 87-010-384-080 | | CAP,ELECT 100-25V |
| C403 | 87-010-384-080 | | CAP,ELECT 100-25V |
| C404 | 87-018-123-080 | | CAP,TC U 220P-50 K B UP050 |
| C420 | 87-018-131-080 | | CAP,TC U 1000P-50 K B UP050 |
| C421 | 87-018-131-080 | | CAP,TC U 1000P-50 K B UP050 |
| C501 | 87-010-246-080 | | CAP,ELECT 47-35V |
| C502 | 87-010-384-080 | | CAP,ELECT 100-25V |
| C503 | 87-010-384-080 | | CAP,ELECT 100-25V |
| C504 | 87-018-123-080 | | CAP,TC U 220P-50 K B UP050 |
| C601 | 87-018-134-080 | | CAPACITOR,TC-U 0.01-16 |
| C602 | 87-018-209-080 | | CAP,TC U 0.1-50 Z F UP050 |
| C603 | 87-018-209-080 | | CAP,TC U 0.1-50 Z F UP050 |
| C604 | 87-010-246-080 | | CAP,ELECT 47-35V |
| C605 | 87-010-246-080 | | CAP,ELECT 47-35V |
| C606 | 87-018-209-080 | | CAP,TC U 0.1-50 Z F UP050 |
| C607 | 87-018-209-080 | | CAP,TC U 0.1-50 Z F UP050 |
| C608 | 87-018-209-080 | | CAP,TC U 0.1-50 Z F UP050 |
| C609 | 87-018-209-080 | | CAP,TC U 0.1-50 Z F UP050 |
| C701 | 87-010-399-010 | | CAP,E 3300-35 M SME |
| C702 | 87-010-399-010 | | CAP,E 3300-35 M SME |
| C703 | 87-018-209-080 | | CAP,TC U 0.1-50 Z F UP050 |
| C704 | 87-018-209-080 | | CAP,TC U 0.1-50 Z F UP050 |
| C705 | 87-010-386-080 | | CAP,ELECT 330-25V |
| C706 | 87-010-385-080 | | CAP,ELECT 220-25V |
| C707 | 87-010-405-080 | | CAP,ELECT 10-50V |
| C709 | 87-010-380-080 | | CAP,ELECT 47-16V |
| C710 | 87-010-380-080 | | CAP,ELECT 47-16V |
| CN102 | 87-049-469-010 | | CONN,4P V WHT EH |
| CN103 | 87-009-030-010 | | CONN,2P V WHT PH |
| CN104 | 87-099-043-010 | | CONN,2P V WHT EH |
| CNA101 | 8B-YP6-621-010 | | CONN ASSY,5P V PH REAR |
| CNA104 | 8B-YP6-623-010 | | CONN ASSY,2P SPKR |
| ⚠ PR701 | 87-A91-944-080 | | PROTECTOR,4A 20P 60V |
| ⚠ PR702 | 87-A91-944-080 | | PROTECTOR,4A 20P 60V |
| R412 | 87-022-050-080 | | RES,M/F 0.22-1W J |
| R414 | 87-022-050-080 | | RES,M/F 0.22-1W J |
| R512 | 87-022-050-080 | | RES,M/F 0.22-1W J |
| R514 | 87-022-050-080 | | RES,M/F 0.22-1W J |
| SP1 | 8B-YP6-610-010 | | SPKR,200 8OHM<TS-WM7> |
| SP1 | 8Z-YP2-622-010 | | SPKR,200 8OHM(N)<TS-WM6> |
| REAR C.B | | | |
| C1 | 87-018-129-080 | | CAP,TC U 680P-50 K B UP050<TS-WM7> |
| C1 | 87-018-134-080 | | CAPACITOR,TC-U 0.01-16<TS-WM6> |
| C2 | 87-015-695-080 | | CAP,E 1-50 M 7L SRA |
| C3 | 87-015-695-080 | | CAP,E 1-50 M 7L SRA |
| C4 | 87-015-695-080 | | CAP,E 1-50 M 7L SRA |
| C5 | 87-015-696-080 | | CAP,E 2.2-50 M 7L SRA<TS-WM7> |
| C6 | 87-015-696-080 | | CAP,E 2.2-50 M 7L SRA<TS-WM7> |
| C7 | 87-015-695-080 | | CAP,E 1-50 M 7L SRA |
| C10 | 87-015-695-080 | | CAP,E 1-50 M 7L SRA |
| C11 | 87-010-060-080 | | CAP,E 100-16 M 7L SRA |
| C12 | 87-018-209-080 | | CAP,TC U 0.1-50 Z F UP050 |
| CN1 | 87-009-033-010 | | CONN,5P V WHT PH |
| J1 | 8B-YP6-615-010 | | JACK,PIN 1P BLK MTJ-032 |
| S1 | 85-LB5-625-010 | | SW,SL 1-1-2 SS12D04<TS-WM7> |
| VR1 | 8A-YP3-617-010 | | VR,RTRY 20KX1 1 |
| POWER C.B | | | |
| C901 | 87-A11-150-080 | | CAP,TC U 0.47-50 Z F |
| C902 | 87-A11-150-080 | | CAP,TC U 0.47-50 Z F |
| ⚠ CN901 | 87-099-674-010 | | CONN,2P V VA<TS-WM7> |
| CNA902 | 8B-YP6-622-010 | | CONN ASSY,4P V EH POWER |
| ⚠ F901 | 87-A91-225-010 | | FUSE,1.6A 125V T 51S |
| ⚠ FC901 | 87-033-213-080 | | FUSE CLAMP,PFC5000 |
| ⚠ FC902 | 87-033-213-080 | | FUSE CLAMP,PFC5000 |
| ⚠ PT901 | 8B-YP6-611-010 | | PT,U |
| ⚠ TB901 | 82-304-743-010 | | TERMINAL,1P |
| ⚠ TB902 | 82-304-743-010 | | TERMINAL,1P |
| SW C.B<TS-WM7 ONLY> | | | |
| ⚠ C801 | 87-A10-480-090 | | CAP,CER 4700P-250 M E KH |
| ⚠ CNA801 | 8B-YP6-625-010 | | CONN ASSY,2P V VA SW |
| CNA802 | 8B-YP6-624-010 | | CONN ASSY,2P V PH LED |
| D801 | 8Z-YP2-617-010 | | LED,3 GRN STRAIGHT |
| HL801 | 8B-YP6-210-010 | | HLDR,LED L12 |
| ⚠ S801 | 87-YP5-626-010 | | SW,PUSH 1-1-1 SY16-52-3 |
| LED C.B<TS-WM6 ONLY> | | | |
| CNA812 | 8B-YP6-624-010 | | CONN ASSY,2P V PH LED |
| D811 | 8Z-YP2-617-010 | | LED,3 GRN STRAIGHT |
| HL811 | 8B-YP6-210-010 | | HLDR,LED L12 |

## TRANSISTOR ILLUSTRATION

E C B

KTA1266
KTC3198



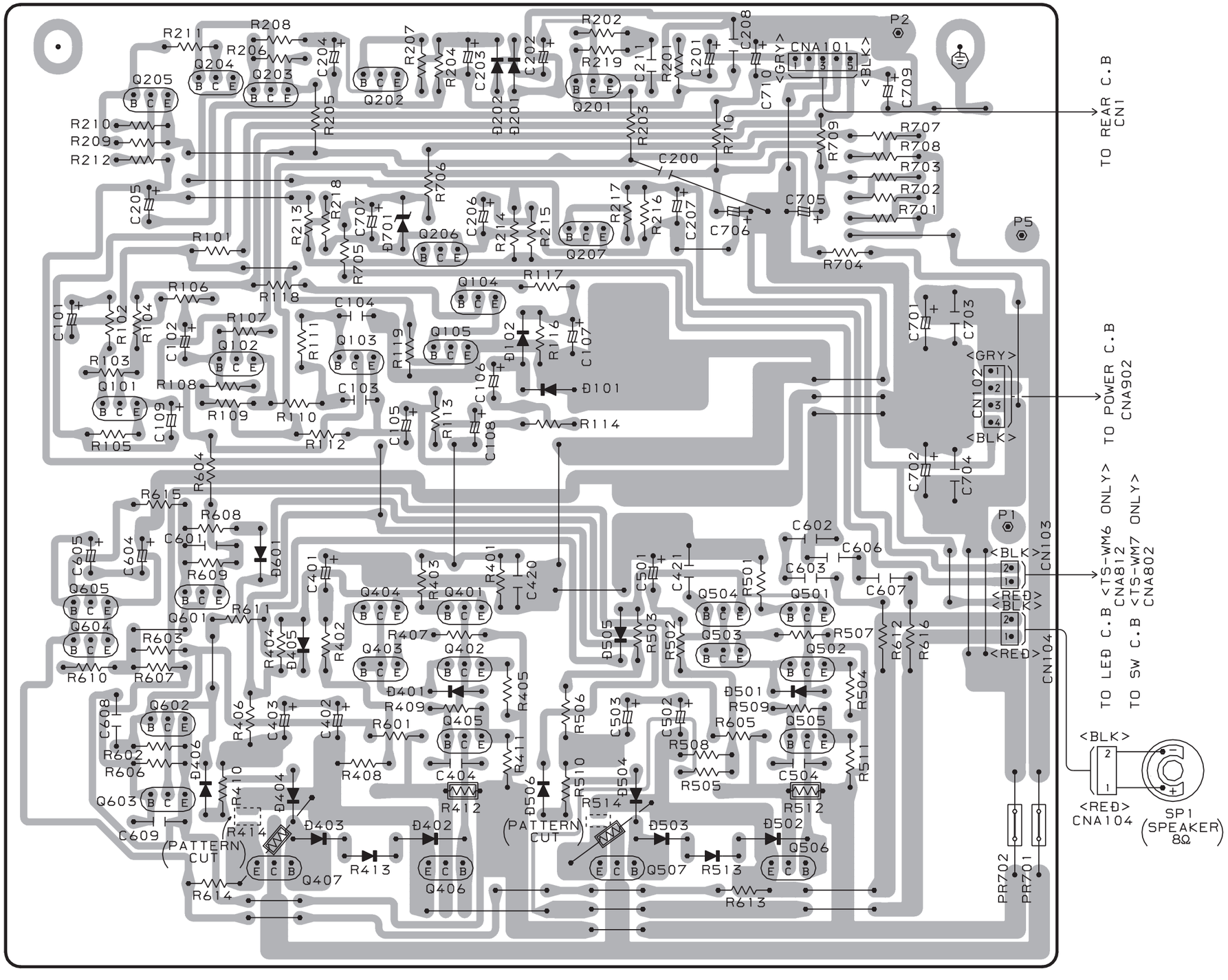
B C E

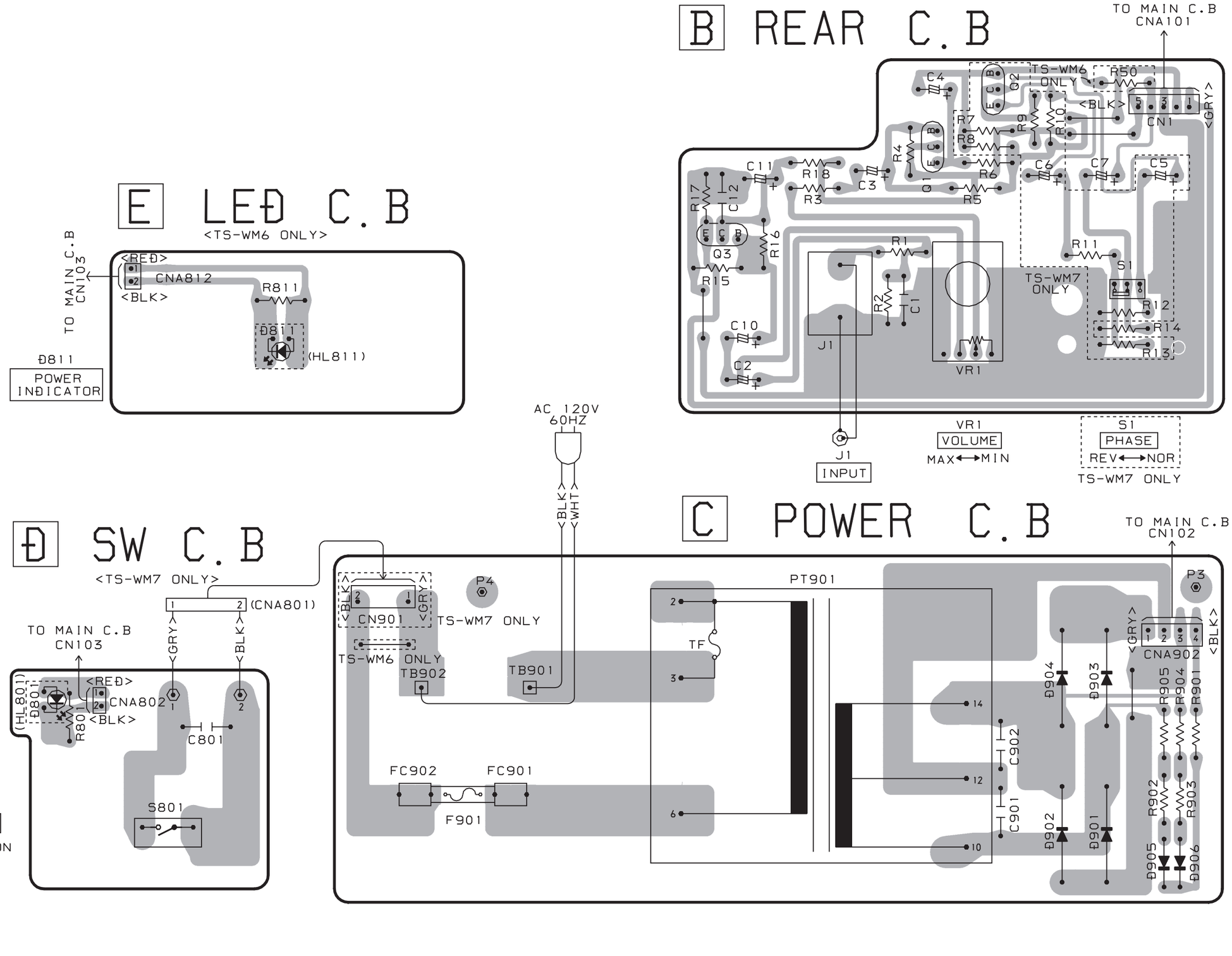
2SB1677
2SD2619

32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

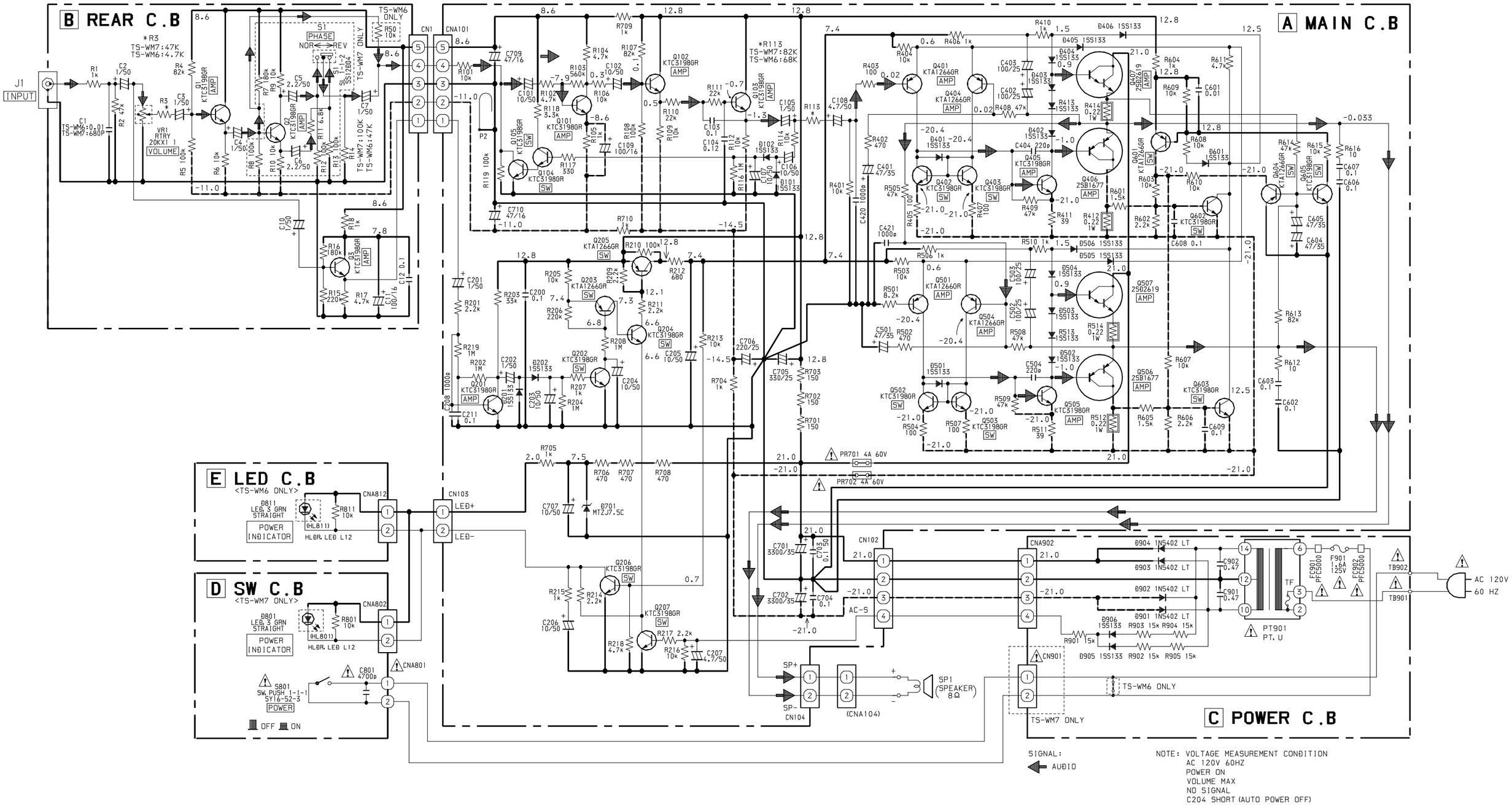
A B C D E F G H I J K L M N O P Q R S T U

# A MAIN C.B

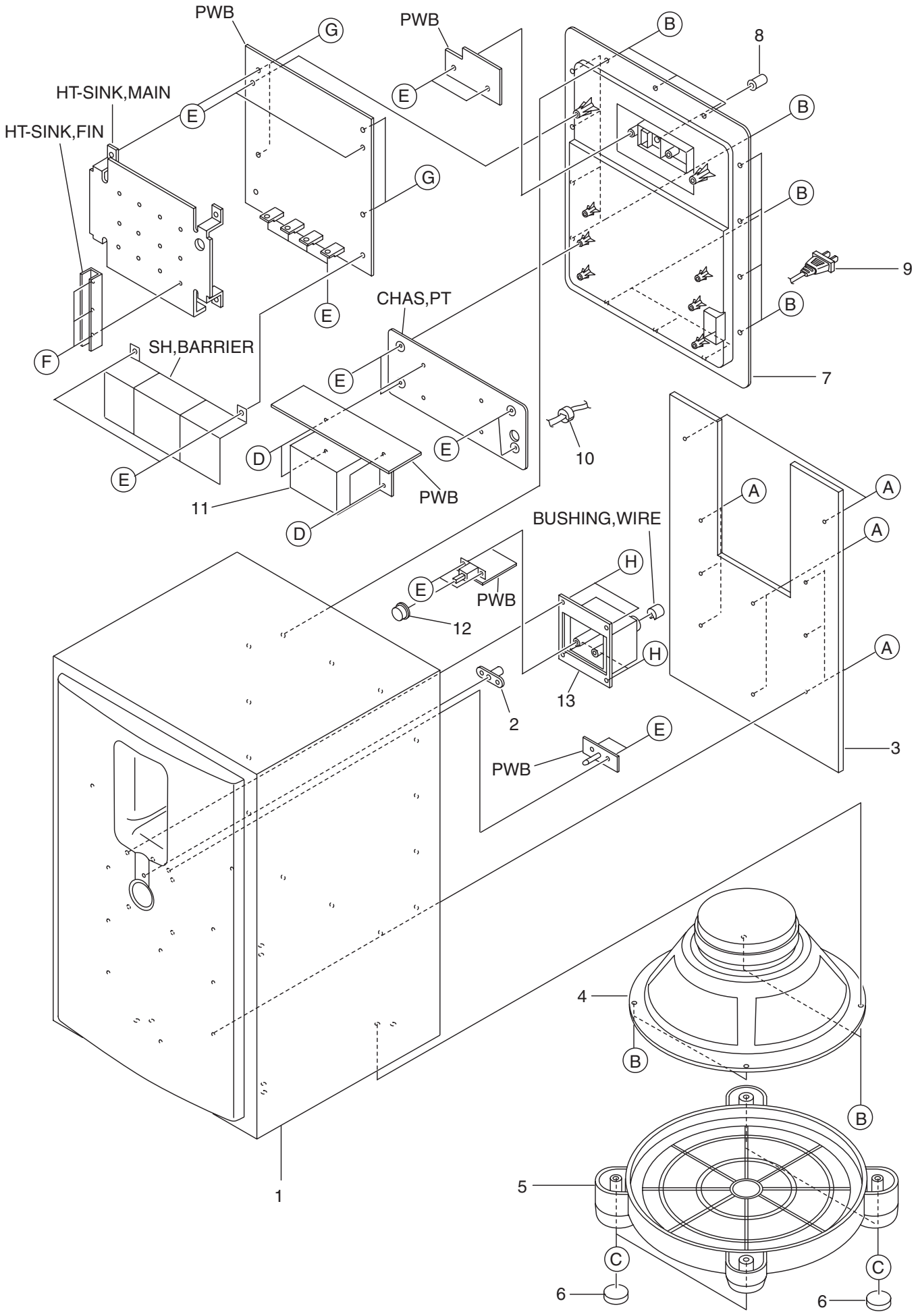



E LED C.B
<TS-WM6 ONLY>
TO MAIN C.B
CN103
<RED>
CNA812
<BLK>
R811
Đ811
(HL811)
Đ811
POWER
INDICATOR
B REAR C.B
TO MAIN C.B
CNA101
TS-WM6
ONLY
R50
<BLK>
<GRY>
CN1
C4
Q2
R7
R8
R9
R10
C6
C7
C5
C11
R18
R3
C3
R4
Q1
R6
R5
R17
C12
Q3
R16
R15
R1
R2
C1
C10
C2
J1
VR1
R11
S1
TS-WM7
ONLY
R12
R14
R13
J1
INPUT
VR1
VOLUME
MAX←→MIN
S1
PHASE
REV←→NOR
TS-WM7 ONLY
AC 120V
60HZ
BLK
WHT
C POWER C.B
TO MAIN C.B
CN102
P4
P3
PT901
TS-WM7 ONLY
CN901
TS-WM6 ONLY
TB902
TB901
TF
CNA902
FC902
FC901
F901
C902
C901
Đ904
Đ903
Đ902
Đ901
Đ905
Đ906
R905
R904
R901
R902
R903
Đ SW C.B
<TS-WM7 ONLY>
(CNA801)
TO MAIN C.B
CN103
Đ801
POWER
INDICATOR
(HL801)
Đ801
<RED>
CNA802
<BLK>
R80
C801
S801
S801
POWER
OFF ON

SCHEMATIC DIAGRAM (MAIN / REAR / POWER / SW / LED)



MECHANICAL EXPLODED VIEW 1 / 1



# MECHANICAL PARTS LIST 1 / 1

| REF. NO. | PART NO. | KANRI NO. | DESCRIPTION |
|---|---|---|---|
| 1 | 8B-YP6-012-010 | | CABI,WOODBOX B ASSY<TS-WM7UBC> |
| 1 | 8B-YP6-011-010 | | CABI,WOODBOX S ASSY<TS-WM6USC> |
| 2 | 8B-YP6-005-010 | | WINDOW,LED |
| 3 | 8B-YP6-214-010 | | PANEL,WOOD FRONT |
| 4 | 8B-YP6-610-010 | | SPKR,200 8OHM<TS-WM7UBC> |
| 4 | 8Z-YP2-622-010 | | SPKR,200 8OHM(N)<TS-WM6USC> |
| 5 | 8B-YP6-006-110 | | COVER,SPKR |
| 6 | 8B-YP6-205-010 | | FOOT,RUBBER |
| 7 | 8B-YP6-008-010 | | CABI,REAR W/O SW |
| 8 | 8B-YP6-004-010 | | KNOB,RTRY VOL |
| ⚠ 9 | 87-YP4-620-010 | | AC CORD ASSY,U SPT-2W |
| 10 | 86-SP2-637-010 | | BUSHING,AC U |
| ⚠ 11 | 8B-YP6-611-010 | | PT,U |
| 12 | 8B-YP6-003-010 | | BTN,POWER<TS-WM7UBC> |
| 13 | 8B-YP6-202-010 | | HLDR,SW<TS-WM7UBC> |
| A | 87-741-103-410 | | UT2+3-2.5 W/O SLOT |
| B | 8B-YP6-219-010 | | UT1+3.5-16 BLK |
| C | 8B-YP6-221-010 | | SW+3.5-25 |
| D | 87-067-566-010 | | TAPPING SCREW,VFTT+3-6 |
| E | 87-067-703-010 | | TAPPING SCREW,BVT2+3-10 |
| F | 87-067-579-010 | | BVT2+3-8 W/O SLOT |
| G | 87-NF4-224-010 | | S-SCREW,IT3B+3-8 |
| H | 87-067-632-010 | | TAPPING SCREW,BVT2+3-15<TS-WM7UBC> |

## COLOR NAME TABLE

| Basic color symbol | Color | Basic color symbol | Color | Basic color symbol | Color |
|---|---|---|---|---|---|
| B | Black | C | Cream | D | Orange |
| G | Green | H | Gray | L | Blue |
| LT | Transparent Blue | N | Gold | P | Pink |
| R | Red | S | Silver | ST | Titan Silver |
| T | Brown | V | Violet | W | White |
| WT | Transparent White | Y | Yellow | YT | Transparent Yellow |
| LM | Metallic Blue | LL | Light Blue | GT | Transparent Green |
| LD | Dark Blue | DT | Transparent Orange | GM | Metallic Green |
| YM | Metallic Yellow | DM | Metallic Orange | PT | Transparent Pink |
| LA | Aqua Blue | GL | Light Green | HT | Transparent Gray |

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